

33. (Amended) [A single-chain Fv (sFv)] An isolated polypeptide for binding preferentially to a c-erbB-2 or a c-erbB-2-related tumor antigen, the polypeptide comprising:

an amino acid sequence comprising [defining] at least one group of three [two polypeptide domains, connected by a polypeptide linker spanning the distance between the C-terminus of one domain and the N-terminus of the other, the amino acid sequence of each said domain comprising] complementarity determining regions (CDRs) interposed between framework regions (FRs) said FRs derived from a human immunoglobulin, wherein (i) the [CDRs and FRs of each] polypeptide [chain together defining a binding site] is immunologically reactive with said c-erbB-2 or c-erbB-2-related tumor antigen, and (ii) each group of three CDRs is selected from the group consisting of amino acid residue numbers 31-35, 50-66, 99-104 of SEQ ID NO:6; amino acid residue numbers 157-167, 183-189, 222-230 of SEQ ID NO:6; amino acid residue numbers 31-37, 52-68, 101-110 of SEQ ID NO:2; and amino acid residue numbers 159-169, 185-191, 224-233 of SEQ ID NO:2.

42. (Twice Amended) A DNA [sequence] molecule comprising a coding sequence encoding [the] a polypeptide [chain of claim 33] for binding preferentially to a c-erbB-2 or a c-erbB-2-related tumor antigen, the polypeptide comprising:

an amino acid sequence comprising at least one group of three complementarity determining regions (CDRs) interposed between framework regions (FRs), wherein (i) the polypeptide is immunologically reactive with said c-erbB-2 or c-erbB-2-related tumor antigen, and (ii) each group of three CDRs is selected from the group consisting of amino acid residue numbers 31-35, 50-66, 99-104 of SEQ ID NO:6; amino acid residue numbers 157-167, 183-189, 222-230 of SEQ ID NO:6; amino acid residue numbers 31-37, 52-68, 101-110 of SEQ ID NO:2; and amino acid residue numbers 159-169, 185-191, 224-233 of SEQ ID NO:2.

Please add the following new claims:

Sub 42
--50. (New) The DNA molecule of claim 42, wherein said FR sequences are derived from a human immunoglobulin.

51. (New) A recombinant vector comprising the DNA molecule of claim 42 operably linked to control elements, whereby the coding sequence encoding said polypeptide can be transcribed and translated in a host cell.

52. (New) A recombinant vector comprising the DNA molecule of claim 50 operably linked to control elements, whereby the coding sequence encoding said polypeptide can be transcribed and translated in a host cell.

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53. (New) A host cell comprising the recombinant vector of claim 51.

54. (New) A host cell comprising the recombinant vector of claim 52.

55. (New) A method of producing a recombinant polypeptide comprising:
(a) providing a population of host cells according to claim 53; and
(b) culturing said population of cells under conditions whereby the polypeptide encoded by the coding sequence present in said recombinant vector is expressed.

56. (New) A method of producing a recombinant polypeptide comprising:
(a) providing a population of host cells according to claim 54; and
(b) culturing said population of cells under conditions whereby the polypeptide encoded by the coding sequence present in said recombinant vector is expressed.--